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Anti-AKAP5 / AKAP79 Antibody (N-Terminus)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS18446

Product Information

Application	WB, IHC-P, IP
Primary Accession	P24588
Predicted	Human, Mouse, Rat, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	47088
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	9495
Alias Symbol	AKAP5
Other Names	AKAP5, A-kinase anchor protein 79 kDa, A-kinase anchor protein, 79kDa, A-kinase anchor protein 79, A-kinase anchor protein 5, AKAP-5, AKAP75, AKAP 79, AKAP79, H21
Target/Specificity	Recognizes endogenous levels of AKAP5 protein.
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-AKAP5 / AKAP79 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	AKAP5
Synonyms	AKAP79
Function	Multivalent scaffold protein that anchors the cAMP-dependent protein kinase/PKA to cytoskeletal and/or organelle-associated proteins, targeting the signal carried by cAMP to specific intracellular effectors (PubMed:1512224). Association with the beta2- adrenergic receptor (beta2-AR) not only regulates beta2-AR signaling pathway, but also the activation by PKA by switching off the beta2-AR signaling cascade. Plays a role in long term synaptic potentiation by regulating protein trafficking from the dendritic recycling endosomes to the plasma membrane and controlling both structural and functional plasticity at excitatory synapses (PubMed:25589740). In hippocampal pyramidal neurons, recruits KCNK2/TREK-1 channel at postsynaptic dense bodies microdomains and converts it to a leak channel no longer sensitive to

	stimulation by arachidonic acid, acidic pH or mechanical stress, nor inhibited by Gq-coupled receptors but still under the negative control of Gs-coupled receptors (By similarity). Associates with ORAI1 pore-forming subunit of CRAC channels in Ca(2+) signaling microdomains where it recruits NFATC2/NFAT1 and couples store-operated Ca(2+) influx to calmodulin and calcineurin signaling and activation of NFAT-dependent transcriptional responses (PubMed:33941685).
Cellular Location	Postsynaptic recycling endosome membrane; Lipid- anchor. Cell projection, dendrite {ECO:0000250|UniProtKB:D3YVF0}. Postsynaptic cell membrane {ECO:0000250|UniProtKB:D3YVF0}; Lipid-anchor. Note=Associates with lipid rafts.
Tissue Location	Predominantly in the cerebral cortex and the postsynaptic densities of the forebrain, and to a lesser extent in adrenal medulla, lung and anterior pituitary